

ABSTRACT

~~The present invention relates to a~~ A purified polypeptide, ~~which~~ is capable of mediating infection of a cell, by use of the polytropic/xenotropic receptor encoded by the Rmc2 locus from a NIH *Swiss* inbred NFS/N mouse for entry, and unable ~~of mediating to mediate~~ infection of a cell by use of a human polytropic/xenotropic receptor encoded by the human RMC1 locus. The ~~present~~ invention especially relates to an envelope protein from the Murine Leukaemia Virus (MLV) strain SL3-2, ~~which is~~ capable of infecting murine cells through ~~use~~ use of the polytropic receptor encoded by the Rmc1 locus, but ~~lacks~~ lacking the ability of infecting human cells expressing the corresponding xenotropic receptor encoded by the RMC1 locus. The ~~present~~ invention furthermore demonstrates that replacements of at least one specified amino acid in the polypeptide can alter the tropism and enable the SL3-2 envelope to infect a human cell by use of the human polytropic/xenotropic receptor encoded by the RMC1 locus for entry.